

news letter

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GENERAL ADMINISTRATION

In a talk before the International Cotton Congress at Waco, Texas, June 26, on "Research on Present Uses of Cotton and Cottonseed," Dr. Knight discussed the need for research to maintain and increase present uses of cotton fiber and seed in the face of competition from other materials.

"The opportunities for making further advances," he said, "are greater today than ever before. Modern developments in science and engineering have placed at our disposal more powerful methods of research, not now being utilized to their fullest, and the incentive to lower the cost and increase the quality of cotton products is certainly greater today than at any other time in the history of our cotton industry. Concerted and intensive research of this nature can, therefore, be expected to produce worthwhile results toward maintaining and expanding the consumption of cotton in present uses."

He cited many examples of substitutions of other products and ways in which research has enabled cotton to get back or increase old markets.

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On June 9, S. H. McCrory was in Chicago conferring with representatives of industry in connection with farm machinery matters. On this trip he also stopped at Madison, Wis., for conferences in regard to hemp; at St. Paul, Minn. for conferences in regard to hemp and flax; and at Ames, Iowa, for conferences in regard to corn storage.

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Dr. David J. Price left Washington on June 9 for a short visit to the four Regional Laboratories for the purpose of closing out the work of the Committee on Plans and Specifications, of which he is chairman.

Dr. Price and Joseph Scott, Chief of the Plans and Service Division arranged to meet in New Orleans where the final inspection of the building has just been completed and the building accepted from the contractor.

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Kenneth W. Heyhoe is receiving training in personnel work in the Personnel Division of the Bureau. He will later be assigned to the Western Regional Research Laboratory.

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Edmund W. Meisenholder, who for several months has been a trainee in personnel work in the Personnel Division of the Bureau, will take up his duties as personnel clerk of the Eastern Regional Research Laboratory on July 1, 1941.

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Increases requested by the Bureau in the Estimates for 1943 were discussed with Department officials on June 5. Dr. Knight, Dr. Skinner, Mr. Herrick, Mr. McCrory, Mr. Donovan and Mr. Gise attended the hearings.

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AGRICULTURAL CHEMICAL RESEARCH

A new research line project "Investigations of the Hemicelluloses, Pectin, and Cellulose in Foods and Feedstuffs and in Plant Residues and Byproducts" was approved by Dr. Knight on June 4, 1941, for the Agricultural Chemical Research Division. Dr. Max Phillips, the project leader, will carry on the investigations in cooperation with Dr. Paul Howe of the Bureau of Animal Industry who will conduct feeding experiments at the Agricultural Research Center, Beltsville, Maryland.

The object of the work is to study the chemical composition and nutritive value of the hemicelluloses, pectin, and cellulose of foods, feedstuffs, plant residues and byproducts with the view to applying such information in the proper utilization and preservation of such materials and byproducts.

The hemicelluloses - using this term in its broader sense to include also pectins - are widely distributed in the vegetable kingdom and constitute in many cases as much as 30 to 40 percent of the dry weight of feedstuffs, plant residues and byproducts. In the chemical analysis of feeding stuffs by the conventional method, the hemicelluloses are included in the so-called nitrogen-free extract. For many years it was considered that the nitrogen-free extract represented the digestible portion and that crude fiber represented the indigestible portion of a plant or plant product. Most nutritionists now agree, however, that in most cases this is not true. As a matter of fact no precise knowledge is available as to whether ruminants or non-ruminants are able to digest and utilize hemicelluloses. The proposed investigation, it is believed, will supply much needed knowledge as to the digestibility of the hemicelluloses and the nutritive value of various plant residues and byproducts.

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H. S. Paine, Chief of the Division, left Washington recently for the West Coast to visit the Division's field stations in California and Washington.

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Among recent visitors was A. H. Anderson, President of James M. Motley and Co., Inc., New York City, exporters in Pan-American trade.

Mr. Anderson, who is interested in Guatemala coffee blossom honey, visited the honey investigations laboratory. He is a nephew of Dr. C. O. Johns, formerly Chief of the Protein Division of the old Bureau of Chemistry.

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E. J. Draper of the Tree-Sweet Products Company of Santa Ana, Calif. visited the U. S. Citrus Products Station at Winter Haven, Fla., discussing with members of that Station problems dealing with the canning of orange juice and utilization of by-products.

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R. S. McKinney of the Gainesville, Fla. laboratory and A.F. Freeman of the Bogalusa, La., tung oil laboratory recently conferred with L. O. Crosby of L. O. Crosby and Sons, Inc., Picayune, Miss., regarding solvent extraction studies, and with officials of Bogalusa Tung Oil, Inc., on the dehydration of tung products. David N. Collins, of the Gainesville laboratory, was graduated from the University of Florida on June 2, receiving the degree of Bachelor of Science. Visitors to the Bogalusa Laboratory included G. S. Jamieson, of the Oil, Fat and Wax Laboratory, and C. E. Wells, General Manager of S. F. Lawrason and Co., Ltd., London, Ontario, Canada.

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G. P. Walton has lately visited a number of concerns in New York, New Jersey, and Pennsylvania, in connection with investigations on dehydration of vegetables.

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On June 14, John L. Etchells of the Raleigh, N.C., field station received the degree of Doctor of Philosophy from Michigan State College. The title of Dr. Etchells' thesis was "A New Type of Gaseous Fermentation Occurring During the Salting of Cucumbers."

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Members of the Division attending the Institute of Food Technologists meeting, Pittsburgh, Pa., June 16-18, were R. S. Hollingshead, Harry W. von Loesecke, Harry E. Goresline, and John L. Etchells.

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Elias Yanovsky recently spent several days in New York, New Jersey, Pennsylvania, and Maryland interviewing importers and industrial users of licorice in connection with an investigation of domestic production.

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ALLERGEN INVESTIGATIONS

Dr. Henry Stevens attended the meetings of the American Association for the Study of Allergy, in Cleveland, Ohio, June 2 and 3. He also attended the meetings of the American Medical Association held in the same city, returning to Washington on June 6.

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Dr. H. H. Webber and Mr. Griff Ross of the University of Texas, Austin, Texas, visited the Allergen Laboratories on June 14, 1941. Dr. Webber's interest was in the possible utilization of immunologic characteristics of cottonseed proteins in identifying inherited qualities in his attempt to produce root rot resistant strains of cotton.

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FARM STRUCTURES RESEARCH

W. V. Hukill, acting chief, recently made a survey of cold storage facilities in the Wenatchee-Okanogan Fruit-Producing District in Washington and is now being transferred for a year to Wenatchee to follow-up the work. He will cooperate with the Secretary's representative, George T. Hudson and with the Land Use Committees in the area in determining what expansion or remodeling of cold storage plants would be economical and in advising the cold storage operators in making such changes; also in determining what changes in handling practices may be advisable to insure effective use of storage facilities and facilitating the adoption of these practices in the industry.

T. A. H. Miller and M.A.R. Kelley will be Acting in Charge of the Division during the absence of Mr. Ashby and Mr. Hukill.

Mr. Kelley made a trip to the Eastern Shore of Maryland to study lighting conditions in dairy barns. Several tests of barns were made in the vicinity of Centerville and Easton. These tests were made in cooperation with the University of Maryland. Results obtained emphasize the importance of location of lamps to obtain most efficient lighting.

Approximately 100 experimental bins have been erected at Hutchinson, Kans. in connection with an investigation of wheat storage to be conducted cooperatively by this Bureau and the Bureaus of Plant Industry and Entomology and Plant Quarantine, Agricultural Marketing Service, Agricultural Adjustment Administration, Commodity Credit Admin., and the Kansas State Agricultural Experiment Station. Several of the bins are now being filled with wheat owned by the C.C.C. The objects of the studies at Hutchinson are to develop economical methods of storage management that will preserve and improve the quality of wheat, to test various types of ventilated and unventilated bins, and to determine the best fumigants and fumigation practices. W. R. Swanson who is the Representative of this Bureau at Hutchinson, has just recently been transferred from the Fort Hays Experiment Station at Hays, Kansas.

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NAVAL STORES RESEARCH

On May 19, Dr. Martin Leatherman conferred with various industrial concerns in New York City regarding treatment of fabrics under Federal Specification 746, to be used in Defense work.

C. F. Speh visited the Hercules Powder Company at Wilmington, Dela. and Fels and Company at Philadelphia on June 4, where he discussed work involving the use of naval stores.

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MECHANICAL PROCESSING OF FARM PRODUCTS RESEARCH

Cotton Ginning Investigations:

On April 28 the U. S. Cotton Ginning Laboratory was visited by a contingent of 75 Arkansas-Missouri ginner and planters under the leadership of C. A. Vines of the Extension Service. The trip was in part sponsored by the Arkansas Cotton Trade Association which has been publicizing the work of the Laboratory and the efforts of Federal and State Extension Services toward improved ginning.

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On May 14 the U. S. Cotton Ginning Laboratory was host to the annual convention of the Mississippi Cotton Ginners' Association. Members of the staff of the Laboratory from both this Bureau and the Agricultural Marketing Service addressed the meeting, and the National Cotton Council displayed motion pictures of the advertising and promotion developments to further the uses of cotton. The Delta Branch Experiment Station assisted in making the meeting a success and were the hosts at a barbecue dinner.

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Wm. E. Meek, Jr. of the International Harvester Company was a visitor at the Laboratory on May 16.

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During the week of May 19-24 the officers and sales representatives of several ginning machinery manufacturers visited the Laboratory.

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On Thursday, May 22, C. A. Bennett conducted a cotton ginners' Forum as the joint representative of this Bureau and the Agricultural Marketing Service before the Louisiana Cotton Ginners' Association at Alexandria, La. About 60 planter-ginners and others interested in ginning and cotton production were present. The Forum was jointly handled by G. A. Gerdes, Cotton Ginning Extension Specialist for Louisiana, who has been working with the Laboratory since cotton ginning improvement specialization has been made a part of the Louisiana Extension work.

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On June 3 C. C. Smith, Mississippi District Agent, and 300 Delta ginners were guests at the U. S. Cotton Ginning Laboratory where a general inspection trip of the ginning work was conducted by the Laboratory staff members in the Agricultural Marketing Service and the Bureau of Agricultural Chemistry and Engineering. A special discussion of cotton ginning and allied problems was held in the oak grove of the Mississippi Delta branch Experiment Station on circus seats built for such purposes jointly by the Station and the Laboratory. The cottonseed oil mill interests of Mississippi under the direction of John Petty took part in the meeting. Dr. Meloy of the Agricultural Marketing Service presented a paper relating to cottonseed and cottonseed grading, and the Forum under the leadership of C. C. Smith, Francis L. Gerdes and C. A. Bennett completed the program for the visitors at the Laboratory.

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Immediately after the Delta ginners' meeting C. A. Bennett drove to Montgomery, Ala., to participate in the annual meeting of the Alabama Cotton Ginners' Association where he presented a paper, "Benefits of Gin Modernization in Alabama," before some 200 ginners. Return was made by

way of Birmingham, Ala. where Mr. Bennett conferred with officials of the Continental Gin Company regarding higher density pressing work which is underway in the Bankhead-Jones research program at the Laboratory.

On Tuesday, June 10, a cooperative farmers' organization from Gilbert, La., sent a delegation to the Laboratory to consult with the ginning specialists and fiber technologists on the modernizing of their cooperative cotton gin.

On June 11 a motorcade of 60 prominent Tennessee cotton ginner under the leadership of the Tennessee Cotton Ginners Association and G. E. Martin, Tennessee Extension Service, University of Tennessee, Knoxville, were guests at the Laboratory for a two-day session on improved ginning and allied subjects. The program was conducted under the leadership of Mr. Martin, C. A. Bennett of this Bureau, Francis L. Gerdes of the Agricultural Marketing Service, and J. E. Hite and Homer C. McNamara of the Bureau of Plant Industry.

Cotton Packaging Investigations

On Sunday night, June 8, Walter M. Ball, an experienced and proficient millwright and carpenter associated with the Cotton Ginning Laboratory work since its inception in 1930, died at Vicksburg, Miss. Mr. Ball was a valued and capable employee of the Bureau, highly esteemed by all of the staff for his personal attainments and professional skill. Much of the heaviest and most difficult machinery to handle in the Laboratory has been installed under his direction without accident or mishap of any sort.

Work is being rapidly pushed on the program for the forthcoming year in the revision of machinery and the arrangement for pressing work which belongs to this section. Jesse E. Harmond and members of his staff have been preparing conversion plans for a farm cotton gin press at which the Department hopes to conduct some important bale-pressing experiments during the coming season.

During the recent group visits reported, the staff of the pressing laboratory was kept busy with explanations of its pure seed handling systems, different presses and other collateral work which is a part of the program. The ginning equipment has been speeded up to a saw speed of 650 r.p.m. by the recent installation of new drives, and additional lint flue apparatus has been installed to permit extensive cleaning tests outlined in the program.

Factory construction is understood to be well underway on special orders placed by the Bureau for hydraulic intensifiers, special high density pumping apparatus and other apparatus needed for improved and higher density pressing.

The only known available 1912 Munger compress, with casing, ram, columns and sills, located at Bunkie, La., has been generously offered free to the Bureau for experimental work if it will remove the 30-ton outfit from the gin of David Haas at Bunkie. This compress had the early record of being able to press conventional 500 pound cotton bales to a sufficient density so that 144 of the bales could be readily loaded into a box car for domestic shipment. The decision of the Bureau relating to the acceptance and transfer of this equipment has not yet been made.

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NORTHERN REGIONAL RESEARCH LABORATORY

Drs. Robert V. Williamson, Theodore R. Naffziger, and Thomas F. Clark conferred with representatives of the National Lock Company in Rockford, Ill., on problems in connection with lignin plastics.

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Joseph H. Shollenberger attended the meetings of the American Association of Cereal Chemists in Omaha, Nebr. and the Association of Operative Millers' convention in St. Louis, Mo., where he obtained information on milling technological problems and developments of interest to the Laboratory.

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Dr. E. C. Lathrop participated in the meetings of the American Institute of Chemical Engineers at Chicago, Ill.

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Drs. Ralph H. Manley and Waldo C. Ault recently went through the plants of the Krause Milling Company, Milwaukee, Wis. and the linseed crushing plant of Archer-Daniels-Midland Company, Minneapolis, Minn. They also conferred with representatives of the Scientific Oil Compounding Company, Swift and Company, Armour and Company, and Wilson and Company, of Chicago; the Pittsburgh Plate Glass Company of Milwaukee; the Department of Agriculture of the University of Minnesota; and General Mills of Minneapolis.

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Dr. Reid T. Milner was in Chicago, for conferences with representatives of the Gaertner Scientific Company and other equipment manufacturers regarding equipment for the Analytical and Physical Chemical Division.

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Dr. Robert D. Coghill conferred with Henry A. Donovan, Assistant Chief of the Bureau, and with chemists of the National Institute of Health, Bethesda, Md., and assisted in drafting an agreement for a cooperative research project dealing with the variation of micro-organisms. Dr. Coghill conferred also with members of the staff of the Eastern Regional Research Laboratory in Philadelphia, and with representatives of Hoffmann-LaRoche Company in New York City, and of Parke-Davis and Company, Detroit, Mich.

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Dr. O. E. May attended a meeting in Washington of representatives of the Bureau particularly interested in the research program on drying oils.

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Donald L. Reed, Associate Chemical Engineer, has been transferred from the Bureau of Plant Industry in Washington to the Engineering and Development Division of this Laboratory. Mr. Reed received his B. A. degree from the University of Washington, and his M.S. degree from Carnegie Institute of Technology.

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Henry A. Donovan and Dr. David J. Price visited the Laboratory and conferred with members of the staff. Mr. Donovan accompanied Dr. May to Urbana, Ill., for conferences with members of the staff of the U. S. Regional Soybean Industrial Products Laboratory.

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On May 23 the Technical Advisory Committee of the Corn Industries Research Foundation devoted one day of their two-day meeting in Peoria to a session at the Laboratory. The Laboratory was represented at this meeting by H. T. Herrick, Assistant Chief of the Bureau, Dr. May, Dr. Hilbert and by Drs. Milner, Manley, and Lanford, of the professional staff of the Starch and Dextrose Division. The presentation of the Laboratory's research program relating to starch and dextrose was followed by a round table discussion after which the committee were taken on a personally conducted tour of the Laboratory.

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Harry E. Rothe was the principal speaker at the annual farmers night and banquet of the Kiwanis Club of Chillicothe, Ill., on May 20. His subject was "The Northern Regional Research Laboratory, What it is, and What it Expects to Accomplish."

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On May 27, 125 members of the Agricultural Committee and the Industrial Relations Committee of the Chicago Association of Commerce came to Peoria by special train for a personally conducted tour of the Laboratory.

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Other groups recently taken through the Laboratory include the home economics students of Bradley Polytechnic Institute of Peoria, and of Eureka College, Eureka, Ill.; the chemistry students of Augustana College, Rockford, Ill.; and seniors of Peoria Central High School.

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EASTERN REGIONAL RESEARCH LABORATORY

Visitors to the Laboratory during May interested in tobacco problems included Hein Nienhuys of Medan, Sumatra, and Carlos Derteano Urrutia of Lima, Peru. Mr. Nienhuys, a grandson of the founder of the Sumatra tobacco industry is on the agricultural staff of the Deli Maatschappi plantations. Mr. Derteano is an agricultural engineer connected with the tobacco monopoly of Peru and is especially interested in tobacco processing problems.

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J. A. Girard and A. B. Hekking, director and assistant director, respectively, of the tobacco purchases in the United States for the French tobacco monopoly visited the Eastern Laboratory on May 20.

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F. Bosschiator, chemist, from Amsterdam Holland, who is interested in the industrial utilization of tropical farm products visited the Laboratory the latter part of May.

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Dr. P. A. Wells, accompanied by Dr. R. D. Coghill of the Northern Laboratory, visited the Hoffmann-La Roche Company at Nutley, N.J., on May 26 for the purpose of conferring with officials regarding certain of their industrial fermentation processes.

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Manual Tubis of the U. S. Food and Drug Administration visited the laboratory on May 24.

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On June 4 Dr. J. J. Willaman gave a talk entitled "Research on the Utilization of Farm Products," before the Montgomery County, Pennsylvania, Real Estate Board at Fort Washington, Pa.

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R. K. Eskew attended the meeting of the Institute of Chemical Engineers at Chicago. While in that vicinity he visited the Pierce Plastics Company at Bay City, Mich. and conferred with officials regarding plastics extrusion. He also conferred with representatives of the Bureau of Mines in Pittsburgh, Pa., concerning specifications for pilot plant equipment and plastics fabrication equipment.

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Grading operations which will greatly improve the appearance of the Laboratory site are actively under way.

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SOUTHERN REGIONAL RESEARCH LABORATORY

Joseph T. Hogan has been appointed Assistant Scientific Aide in the Sweetpotato Products Division. Mr. Hogan studied chemistry at Loyola University, New Orleans, La., and chemical engineering at Tulane, University. From 1938 until his present appointment he was Junior Meteorological Observer for the U. S. Weather Bureau, New Orleans.

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Alva B. Watts has been appointed Junior Scientific Aide in the Sweetpotato Products Division. Mr. Watts received his B.S. degree from Southwestern Louisiana Institute, in 1939 and received his M.S. degree from Louisiana State University in 1941.

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Allen Smith, Perkins Oil Company, Memphis, Tenn., conferred with members of the staff of the Oil, Fat and Protein Division, May 14, with regard to certain problems connected with the manufacture of "Poco Nuts", an edible cottonseed product produced by subjecting decorticated cottonseed kernels to steam cooking followed by frying in various vegetable oils, especially cottonseed and peanut oils.

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Ralph H. Potts, chemical engineer in charge of fatty acid production of Armour & Company, conferred with staff members of the Oil, Fat, and Protein Division on the design and construction of fatty acid stills. Mr. Potts was particularly interested in plans of the Laboratory relating to work on distillation and in basic research on the thermodynamic properties of fatty acids, esters, and glycerides.

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On May 15 and 16, about 35 members of the American Oil Chemists' Society inspected the buildings and facilities of the laboratory, especially with reference to work on vegetable oils. Among the group were J. G. Kane, Bombay, India; Lamar Kishlar, Ralston Purina Company, St. Louis Mo.; L. N. Rogers Buckeye Cotton Oil Company, Memphis, Tenn.; H. C. Dormitzer and G. A. Crapple, Wilson and Company, Chicago, Ill.; Victor Conquest, Armour and Company, Chicago; and J. L. Mayfield, Chickasha Cotton Oil Mills, Chickasha, Okla.

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In connection with his attendance at the meetings of the American Oil Chemists' Society, May 15-16, T. H. Hopper, Acting Director, U. S. Regional Soybean Industrial Products Laboratory, Urbana, Ill., spent considerable time at the laboratory conferring with various staff members with regard to work on fats and oils.

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David F. Boltz and Samuel T. Voorhies, Jr., have been appointed to Junior Chemist positions in the Oil, Fat and Protein Division. Mr. Boltz received his B.A. degree from the University of Wisconsin in 1938 and his M.S. from the University of Missouri School of Mines in 1940. Since September, 1940, he has been a graduate assistant at Vanderbilt University and the University of Missouri School of Mines. Mr. Voorhies received his B. A. from Vanderbilt University in 1939 and has been a teaching fellow at the same institution since that time while continuing in graduate work.

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Robert T. O'Connor, formerly a member of the Section of Spectroanalysis and Photochemistry, Division of Fertilizer Research, Bureau of Plant Industry, has been appointed Assistant Chemist in the Analytical, Physical Chemical and Physical Division. Mr. O'Connor has his B.S. in Chemistry from the George Washington University, Washington, D. C. Dorothy Heintzelman, Mack F. Stansbury and James F. Villers have been appointed Assistant Scientific Aides.

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Lamont Hagan, John F. Keating, and Daniel F. Moorer have been appointed Junior Chemists and have reported for duty in the Cotton Chemical Finishing Division. Mr. Hagan has B. A. and M. S. degrees from the University of Mississippi. Mr. Keating has a B. A. degree from the University of Scranton and an M. S. degree from Georgia School of Technology. Mr. Moorer has a B. S. degree from Clemson College and has done some graduate work at Tulane University.

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Albert S. Cooper has been appointed Junior Scientific Aide in the Cotton Chemical Finishing Division. Mr. Cooper has a B.S. degree from the Louisiana Polytechnic Institute.

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Dr. J. David Reid, Associate Chemist, arrived in New Orleans June 2, to take up his duties with the Cotton Fiber Research Division after a special detail of four months in Washington, D. C., in connection with National Defense.

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Rollin S. Orr, Assistant Scientific Aide, Hereford, Texas, comes to the Cotton Fiber Research Division from Texas Technological College of Lubbock, where he completed advanced courses in Physics.

Randal J. Laporte, Minor Laboratory Helper, resigned effective May 31, to enter the employ of Ethyl Corporation, Baton Rouge, La.

On June 6, Professor L. M. Thomson and honor students E. R. Butler, J. H. Robinson, and R. B. Hartgraves, winners of the Annual Cotton Contest at Texas A. & M. College, were visitors to the Laboratory on their Annual Cotton Study.

June 7, Doctor O. A. Pope, Bureau of Plant Industry, Washington, D.C., was a visitor at the Laboratory en route to various Southern field stations.

May 19, Doctor John T. Scanlan, Eastern Regional Research Laboratory, visited this laboratory and discussed microscopic equipment.

R. J. Cheatham, Chief of the Cotton Processing Division, returned on June 7 from a 10-day trip through Alabama, Georgia and the Carolinas where he conferred with college officials, cotton manufacturers and others concerning the program of research of the Division.

A. Mason DuPre, Jr., returned on May 24 from Washington, D. C., where he spent 3 weeks assisting with the projects dealing with the use of cotton in the National Defense Program.

Kendall Onstott has been appointed Junior Cotton Technologist in the Cotton Processing Division. Mr. Onstott received his B. S. degree in Textile Engineering from Texas Technological College, Lubbock, Texas.

Roland L. Lee Jr., has been appointed Senior Cotton Technologist in the Cotton Processing Division. Mr. Lee received his B. S. degree from Clemson A & M College, Clemson, S.C., his M. S. from North Carolina State College, Raleigh, N.C., and was formerly head of the Textile Engineering Department at Texas Technological College, Lubbock, Texas.

Messrs. Joe H. Estes and Harry S. Darges of the General Accounting Office, Washington, D. C., called at the Laboratory on June 5.

The annual meeting of the Southern Agricultural Experiment Station Relations Committee was held at the Laboratory on May 19. The progress of the work for the past year was outlined; the Chiefs of the Divisions were introduced and discussed their research projects at length. After adjournment, an inspection tour of the building was made.

The Technical Advisory Committee meeting of the National Cottonseed Products Association was held at the Laboratory on May 21. The meeting was given over primarily to a general discussion of the organization of the divisions, research projects, present and proposed personnel, equipment, and our tentative plan of work.

FARM MECHANICAL EQUIPMENT RESEARCH

In connection with the problems of collecting agricultural residues and preparing them for shipment, R. B. Gray spent the period May 18- 27, calling on the Agricultural Engineers of the Ohio, Indiana, Illinois, and Iowa Agricultural Experiment Stations and arranging for cooperative work to be carried on during the wheat and corn harvests. Dr. Lathrop of the Northern Laboratory was also consulted in this connection. Should the proposed plans be carried out pertinent information as to costs of supplying crop residues as raw materials for industrial utilization will be obtained and interest developed among the farmers as to how additional revenue can be obtained from these materials.

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S. H. McCrory and R. B. Gray spent June 9 in Chicago discussing with several of the representatives of farm machinery manufacturers a proposal to induce the farmers throughout the nation to make early repairs and replacements on their equipment as a means of minimizing interruptions in the flow of food and feed in line with defense requirements.

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Mr. Isaacson, patent attorney, of Dayton, Ohio, visited the Division in the interest of a machine he is perfecting on the recovering of shot from the turf of gun ranges. The machine slices and shreds the turf, reclaims the lead and leaves the ground surface in shape for reseeding.

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G. A. Cumings and D. B. Eldredge continued the field operations on fertilizer placement experiments with tomatoes and sweet corn at Geneva, N.Y., with sweetpotatoes at Bethel, Del., with cantaloupes at Hurlock, Md., and with peanuts at Holland, Va.

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L. G. Schoenleber supervised the placement of fertilizer for sweet corn in a cooperative experiment inaugurated at College Park, Md.

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The importance of proper placement of fertilizer has been particularly evident under the dry soil conditions prevailing in the eastern section during the past month. Placement of fertilizer directly under the seed or plant has caused early injurious effects in most instances. It has also been observed that certain nutrient starter solutions applied to the roots of transplants have not been beneficial in all cases, apparently due to the added concentration of salts which is intensified under dry soil conditions.

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The Corn Production Machinery Research Project at Ames, Iowa has been revised to include new methods of corn culture under which the residue of the previous crop is retained on the soil surface to serve as a mulch. C. K. Shedd reports that seedbed preparation and planting operations under the new method were carried out without any serious difficulties. Good stands of corn were obtained in all experiments. Some difficulties may be experienced in weed control because of excessive rainfall during the first ten days of June which will delay cultivation for about two weeks. Preliminary trial of new cultivator equipment indicates, however, that weeds can be destroyed even under unfavorable conditions.

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A new high clearance self-propelled duster adapted for treating corn for corn borer control was made up in the Toledo shop and sent to Connecticut. Frank Irons spent two days at New Haven, Conn., making preliminary field trials with the new duster. The machine performed satisfactorily during these trials.

Visitors at the Toledo station who came for information relative to insecticide and fungicide equipment were Messrs. W. W. Homer and M. G. Farleman of the California Spray-Chemical Corporation, Elizabeth, N.J., J. E. Evans, Root Manufacturing Company, Cleveland, Ohio, Dr. J.J. Wilson and Mr. Priest of the Heinz Canning Company, Bowling Green, Ohio, and J. S. Houser and C. R. Neiswander, Ohio State Entomologists, Wooster, Ohio.

I. F. Reed of the Tillage Machinery Laboratory visited the University of Nebraska during Commencement where he received the professional degree in Agricultural Engineering.

R. M. Merrill assisted in conducting draft tests on moldboard plows near Ithaca, N.Y., during the last two weeks in May. This work was in cooperation with the Soil Conservation Service and Cornell University and consisted in obtaining draft of plows when used on the contour and when used up and down hill.

Walter H. Redit, on military leave from the Division, has recently been promoted from First Lieutenant to Captain.

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ENZYME LABORATORY

At the local June meeting, Dr. A. K. Balls was elected Chairman of the Washington Section of the Society of Experimental Biology and Medicine for the coming year. Dr. Balls succeeds Dr. D. Breese Jones, the retiring Chairman, who will sit on the Society's Council.

Sigmund Schwimmer received the degree of Master of Science from Georgetown University on June 9. His dissertation was concerned with the activation of peptidases, particularly by manganese. The subject was the outgrowth of Mr. Schwimmer's identification and purification of a manganese-activated leucyl peptidase in beef muscle.

T. H. Harris represented the Enzyme Laboratory at the biochemical meetings of the Johns Hopkins University 11th Annual Research Conference at Rehoboth Beach, Del., early in June. En route from the meeting Mr. Harris visited the Microanalytical Laboratories of the Franklin Institute at Newark, Delaware.

By invitation, Gertrude Y. Gottschall attended the Conference on Cooperative Meat Investigations in Chicago, May 12 and 13. After the conference, Dr. Gottschall remained a short time in Chicago conferring with meat packers on enzyme problems in connection with meat curing and preservation.

Dr. Walter S. Hale left the latter part of May for Manhattan, Kans. where he is conducting special investigations on the rapid ripening of combine-harvested wheat. The work is being done in cooperation with the Kansas State Agricultural Experiment Station. Sigmund Schwimmer of the Enzyme Laboratory joined Dr. Hale in Manhattan to assist in the last few weeks of the work.

Dr. Hale reports that the work is being somewhat retarded by the heavy rains in that section. Because of flooded highways Mr. Schwimmer experienced considerable difficulty in reaching Manhattan; he had to go through Nebraska and into Kansas by "the back way."

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Bernard Axelrod described the preparation and some of the properties of the newly crystallized chymopapain before the Washington Section of the Society of Experimental Biology and Medicine at the dinner meeting on June 12.

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Among the visitors to the Laboratory during the past month were Dr. Herbert S. Bailey of the Exchange Orange Products Company, Ontario, Calif.; Dr. A. J. Lorenz, Director, Nutritional Research, California Fruit Growers Exchange, Los Angeles; Robert Rosenbaum of Puerto Rico and Philadelphia; Paul Kennedy, Henningsen Bros., Inc., New York City; Dr. F. C. Blanck, The Heinz Company, Pittsburgh; Dr. J. A. Clague, National Canners Association; and Dr. Brown of the Federal Trade Commission.

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RURAL ELECTRIFICATION RESEARCH

George W. Kable, whose services are retained as consultant for this Division came in for consultation a few weeks ago, and also talked to the student engineering group of the Rural Electrification Administration. Mr. Kable has been elected president of the American Society of Agricultural Engineers and will begin his term at the annual meeting of the Society at Knoxville, Tennessee the week ending June 28.

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Harry L. Garver was in Suffern, N.Y., on June 11 where he discussed the cooperative work of the Bureau at the School of Living.

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PUBLICATIONS APPEARING OUTSIDE THE DEPARTMENT

- BALCH, R. T. Rapid determination of starch (root) with sodium hydrochlorite. Indus. Engin. Chem., Anal. Ed. 13(4): 246-248, April 15, 1941.
- BICKFORD, W. G. The stability of vegetable oils. IV. Flavor reversion in soybean oil. Oil and Soap 18(5): 95-98, May, 1941.
- CUMINGS, G. A., SCHOENLEBER, L. G. and ELDREDGE, D. B. (With C. H. MAHONEY, SA, H. A. HUNTER and A. WHITE, Univ. of Md.) Experiments with pea fertilizer placement in Maryland. The Canner 92(20): 32-34, 36, Apr. 19, 1941.
- DIEHL, H. C. Technological aspects of locker plant industries. Quick Frozen Foods 3(7 & 8): 16-17, 42 & 24, 37-38 Feb. 1941, & March, 1941.

- FREY, R. W. (With J. G. SCHNITZER, Bur. of For. & Dom. Comm.) Leather. Britannica Book of the Year 1941, pp. 398-399.
- HORN, M. J. and JONES, D. B. The isolation of lanthionine from human hair, chicken feathers and lactalbumin. Jour. Biol. Chem. 139(1): 473, May, 1941.
- HUKILL, W. V. Needed research on southern farm buildings. Agr. Engin. 22(4): 127-128, April, 1941.
- McKINNEY, L. L. and BROTHER, G. H. Soybeans in plastics. Flor properties of a phenolic type plastic modified with formaldehyde-hardened soybean meal. Modern Plastics 18(9): 69-71, May, 1941.
- SHINGIER, G. P. Comparative summary of crude and cleaned gum distillation work at the naval stores station, Olustee, Florida. Naval Stores Rev. 51(5): 16, May 3, 1941.
- Studies in the storage of turpentine gum for distillation. Naval Stores Rev. 51(6): 13, May 10, 1941.
- SIMONS, J. W. New approaches to farmhouse design, construction and equipment. Agr. Engin. 22(5): 181-184, May, 1941.
- SPEH, C. F. 1940-41 annual naval stores report on production, distribution, consumption and stocks. Naval Stores Rev. 51(9): 4, 8, May 31, 1941.
- 1940-41 annual naval stores report on production, distribution, consumption and stocks of turpentine and rosin, May 20, 1941.
- ACE-92. Naval Stores Review, 51:(10), pp. 8, 10, 13, 16, 20, June 7, 1941.
- SPIES, J. R. Recovery of the cottonseed allergenic protein from its picrate by electrophoresis. Jour. Amer. Chem. Soc. 63(4): 1166, April, 1941.
- WILLIAMS, K. T. Official and tentative methods of analysis. Cereal Chem. 18(2): 266, March, 1941.

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CHANGES IN PERSONNEL

Recent Appointments - Indefinite or Probationary

Arlene M. Pinkelman	Senior Stenographer	Agr. Chem. Res. Div.
Mildred M. Rugg	Senior Bkbp. Machine Operator	Bookkeeping Section.
Mrs. Olive V. Steif	Asst. Clerk-Stenog.	Budget Est. & Repts. Sec.
Osker Loving	Unskilled Laborer (Uncl.)	
	(Stoneville, Miss.)	Cotton Ginning Inv.
Richard Hoe Robinson	Under Scientific Helper	Enzyme Laboratory
Mrs. Rose S. Goodman	Senior Stenographer	Naval Stores Res. Div.
Lillian E. Hofstra	Junior Stenographer	Plans and Service
Elizabeth G. Nichols	Junior Stenographer	" " "
Rosalind Tamer	Junior Stenographer	" " "
Joseph B. Vogt	Mechanical Engineer	" " "
Doris D. Eyth	Junior Clerk-Stenographer	Purchase & Property Sec.
Richard H. Johnson	Mechanic (Urbana, Ill.)	Reg. Soybean Lab.
Robert J. Thorn	Principal Glassblower	
	(Urbana, Ill.)	" " "

Recent Appointments - Indefinite or Probationary (Cont'd)

		East.	Reg.	Res.	Lab.
Lewis DiCamillo	Jr. Clerk-Stenographer	"	"	"	"
C. Roland Eddy	Assistant Chemist	"	"	"	"
Martin L. Fein	Junior Chemist	"	"	"	"
Ellwood Hammaker	Assistant Chemist	"	"	"	"
Samuel Krulick	Minor Lab. Helper	"	"	"	"
Frank A. Pinto	Sr. Guard (Mechanic)	"	"	"	"
Edward J. Schaeffer	Minor Lab. Helper	"	"	"	"
Robert F. Shannon	Engr. Aide (Chemical)	"	"	"	"
Robert C. Warner	Assistant Chemist	"	"	"	"
J. Paul Williams	Asst. Scientific Aide	"	"	"	"
Mrs. Sarah R. Aery	Under Clerk-Typist	North.	"	"	"
Mrs. Flossie M. Booher	Minor Scientific Aide	"	"	"	"
Wilbur J. Cline	Under Scientific Aide	"	"	"	"
Howard File	Collaborator (Decatur, Ill.)	"	"	"	"
Lawrence B. Magnusson	Asst. Scientific Aide	"	"	"	"
Mrs. Ardis O. Marshall	Minor Scientific Aide	"	"	"	"
Mrs. Amelia G. Monroe	Minor Scientific Aide	"	"	"	"
George E. N. Nelson	Under Scientific Aide	"	"	"	"
William B. Newkirk	Collaborator (Argo, Ill.)	"	"	"	"
Mrs. Genevieve K. Price	Minor Scientific Aide	"	"	"	"
David F. Boltz	Junior Chemist	South.	"	"	"
Jackson J. Boudoin	Skilled Laborer (Oiler)	"	"	"	"
Albert S. Cooper, Jr.	Jr. Scientific Aide	"	"	"	"
Thomas D. Fontaine	Assistant Chemist	"	"	"	"
Lamont Hagan	Junior Chemist	"	"	"	"
Dorothy C. Heinzelman	Asst. Scientific Aide	"	"	"	"
Joseph T. Hogan	Asst. Scientific Aide	"	"	"	"
John F. Keating	Junior Chemist	"	"	"	"
Roland L. Lee, Jr.	Sr. Cotton Technologist	"	"	"	"
Daniel F. Moorner	Junior Chemist	"	"	"	"
Robert T. O'Connor	Assistant Chemist	"	"	"	"
Kendall Onstott	Jr. Cotton Technologist	"	"	"	"
Rollin S. Orr	Asst. Scientific Aide	"	"	"	"
Joseph T. Rouse	Asst. Cotton Technologist	"	"	"	"
Mrs. Elizabeth M. Smith	Junior Clerk	"	"	"	"
Mack F. Stansbury	Asst. Scientific Aide	"	"	"	"
James F. Villere	Asst. Scientific Aide	"	"	"	"
Samuel T. Voorhies, Jr.	Junior Chemist	"	"	"	"
Alva B. Watts	Junior Scientific Aide	"	"	"	"
Clyde L. Rasmussen	Asst. Industrial Analyst	West.	"	"	"

Recent Appointments - Temporary

John E. Dunn	Mechanic's Helper (Corvallis, Oregon)	Fiber Flax Inv.
R. E. Loadholtz	Unskilled Laborer (Olustee, Fla)	Naval Stores Res. Div.
Charles L. McDonald	" " " "	" " " "
James McDonald	" " " "	" " " "
Fred Robinson	" " " "	" " " "
Larcenor Robinson	" " " "	" " " "
Charley E. Williams	" " " "	" " " "
Vespucci V. Petrone	Architect	Plans and Service
Thelma Anne Norton	Junior Clerk-Typist	Purchase & Property Sec.
John M. Gates	Unskilled Laborer (Uncl) (Urbana, Ill.)	Reg. Soybean Lab.
William M. Henry	do do	" " "
Mrs. Judith McDonald	Junior Clerk-Typist	Adm. Reg. Res. Lab.
Rose Green	Under Clerk-Typist	East. Reg. Res. Lab.
Arthur F. Paul	Sr. Landscape Architect	" " " "
Edith Zinkoff	Jr. Clerk-Stenographer	" " " "
Albert Payne	Unskilled Laborer	South. Reg. Res. Lab.
Leander A. Smith	" "	" " " "
Louise Waggoner	Under Clerk-Typist	" " " "

Separations

John L. Heid	Chemist (Weslaco, Texas)	Agr. Chem. Res. Div.
Marjory E. Mathias	Minor Scientific Helper	" " " "
John Eldridge Thompson	Unskilled Laborer (Stoneville, Miss.)	Cotton Ginning Inv.
Mrs. Esther F. Adams	Asst. Clerk-Stenographer	Farm Struc. Res. Div.
Wallace Ashby	Principal Agr. Engr. (To Office for Emergency Management)	" " " "
Carol J. Haxton	Under Clerk-Typist (Hays, Kans. (To B.P.I.))	" " " "
Carrie C. Carte	Asst. Arch. Engr. (To War Dept)	Plans and Service
Phoebe C. Greene	Junior Stenog. (To 8th Naval Dist. Hdqrs. Louisiana)	" " "
George H. Tsuruoka	Engr. Draftsman (Arch.) To War Dept.)	" " "
Milton Weinberg	Jr. Clerk-Typist (to Surplus Mktg. Adm.)	" " "
William James Corbett, Jr.	Under Scientific Helper (Urbana, Ill.)	Reg. Soybean Lab.
Russell Elden Dickerson	Jr. Laborer (Urbana, Ill.)	" " "
Lake B. Edwards, Jr.	" " " "	" " "
Joseph F. Shekleton, Jr.	Under Scientific Helper (Urbana, Ill.)	" " "
Hugh W. Stewart	Under Scientific Helper (Urbana, Ill.)	" " "
Warren Lewis Walton	Principal Glassblower (Urbana, Ill.)	" " "

Separations (Continued)

Philip H. Groggins	Principal Industrial Analyst (To Office for Emergency Management)	East.	Reg.	Res.	Lab.
William M. Heinly	Sr. Guard (Mechanic)	"	"	"	"
Mrs. Margaret D. Alholm	Jr. Clerk-Stenog.	North.	"	"	"
Alfred H. Crisp	Senior Opr. Engineer	"	"	"	"
Harriet S. Felt	Under Clerk-Typist	"	"	"	"
Maxine M. Hamma	Under Clerk-Typist	"	"	"	"
Paul F. McKown	Unskilled Laborer (Cleaner)	"	"	"	"
Mary E. Seipel	Under Clerk-Typist	"	"	"	"
John F. Shultz	Assoc. Chemist (To Tennessee Valley Authority)	"	"	"	"
Frank Banach	Sr. Opr. Engineer	South.	"	"	"
Randal J. Laporte	Minor Laboratory Helper	"	"	"	"
Mrs. Audrey M. Schneider	Jr. Clerk-Stenog.	"	"	"	"
Vernon A. Bergfeld	Janitor (Cancelled, no service)	West.	Reg.	Res.	Lab.
George S. Berry	Guard	"	"	"	"
Niles Madsen	Assistant Messenger	"	"	"	"

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